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Outline Of Reference Paper On:

PROBLEMS OF THE MECHANIZATION AND AUTOMATION OF PRODUCTION IN THE USSR

Stalin used to insist that capitalist countries were incapable of technological progress and that the USSR was outstripping them in this field. The resulting complacency only widened the automation gap between the Western countries and the lagging Soviet Union.

The July 1955 Party Central Committee Plenum marked the beginning of self-criticism in the field of technology. The official admissions of technological backwardness opened the gates to a stream of complaints in the press about primitive and obsolete equipment. The Soviet leaders took a second look at Western technology and now appear anxious to study it and apply it in their own country.

Attempts to introduce automation into the USSR have met with several obstacles inherent in the Soviet economic system, such as fixed prices and profit margin, and a rigid, planned economy. Administrative breakdowns and snags in organization are a further obstacle to automation.

Still another problem of substituting machines for men is unemployment. Communist doctrine denies the possibility of unemployment in the Soviet Union. Yet the press has reported numerous automation-caused layoffs. Some Soviet specialists have suggested that these people be sent to work on the semi-deserts and marshes of the virgin lands.

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PROBLEMS OF THE MECHANIZATION AND AUTOMATION OF PRODUCTION IN THE USSR

The Soviet leaders claim that the mechanization and automation of Soviet industry will lead to greater prosperity for the worker. However, judging by the signs, the Soviet industry is lagging well behind the Western countries in the introduction and use of mechanical and automatic processes.

The automation gap is a result of Stalin's obstinate view that modern capitalism is incapable of technological progress and that first place in this field is occupied by the USSR (Voprosy Leninizma, Problems of Leninism, 11th edition, p. 616).

The Soviet leaders changed their standpoint when they realized the width of the gap. Starting with the July 1955 Party Central Committee Plenum, they began to speak and write more openly of the technological backwardness of many branches of Soviet industry. In recent years the Soviet press has repeatedly deplored that Soviet industry possesses far too much obsolete equipment. At an exhibition of Soviet factory equipment, Khrushchev complained that "this is a sight, comrades, at which you might well throw a fit . . . some machines are so obsolete that they are already (as old as) great grandmothers" (Pravda, July 2, 1959). Yet Soviet industry is still manufacturing such machinery: "Many types of machinery and equipment created by our machine builders lag technically well behind the best models manufactured abroad" (Pravda, July 17, 1955).

A sober look at their own industry has compelled the Soviet leaders to re-examine their thesis that technological progress under capitalism is impossible. Now it is admitted that "capitalist contradictions do not imply the impossibility of technological progress" (Kommunist, No. 18, 1959, p. 37).

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As a result of technological progress, such contradictions "are merely consolidated and produced in a sharper form." At present the Soviet Union is not only anxious to study and apply Western experience; there have been suggestions that cash bonuses be awarded for the "adoption of leading foreign experience" (Voprosy Ekonomiki, Problems in Economics, No 5, 1960, p. 5).

The introduction of new technical processes in the USSR is difficult because of serious obstacles inherent in the Soviet economic system: "Unfortunately, the practice used to date of fixing prices and of establishing the profit still favors the manufacture of obsolete products to the new, technically more perfect ones" (Voprosy Ekonomiki, No. 5, 1960, p. 46). The point is that in a free market economy, which is not restricted by state planning, the introduction of new equipment is governed by economic factors. In the USSR it is difficult to determine actual production costs (Voprosy Ekonomiki, No. 7, 1960, p. 36), making it equally difficult to determine just how effective new equipment will be.

Another obstacle to the introduction of automation in the USSR is the Soviet system of overall planning. In a planned economy technological progress is determined by the plan. Plants are not interested in modernizing and replacing their equipment since the transfer will delay plan fulfillment. "Experience has shown that this system does not create the necessary stimulus for a gradual rise in technology" (Ibid., p. 33).

In accordance with a decree of the 1959 Central Committee Plenum, the Party organizations, and not the research institutes or designing bureaus and enterprise technical departments, were to "take the lead in the struggle for technical progress" (Pravda, June 30, 1959). No surprise, then, if

...The introduction of not very efficient or completely inefficient equipment is permitted... Often machines are introduced into plants which only very slightly increase labor productivity, do not facilitate, but sometimes even make work more difficult (Kommunist, No. 10, 1960, p. 25).

The breakdowns in organization - a chronic affliction of the Soviet economic system - also hamper technical progress. For instance, at a Moscow automobile plant, a design for a truck has long been ready, but some two or three years will be needed before production can begin (Pravda, November 16, 1960). Often equipment stands idle in warehouses when it could be used elsewhere. On April 30, 1960, there were 18 billion rubles worth of uninstalled machinery in

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the RSFSR (Ekonomicheskaya Gazeta, Economic Gazette, October 11, 1960). Much time is wasted co-ordinating and ratifying the new designs of the various agencies: "The time spent from the beginning of an automation research project until introduction into industry usually comprises from four to seven years" (Ibid., July 15, 1960).

The results of the modern technological revolution are now making themselves felt in the industrial, economic, social, and political fields. The question now arises as to which of the two economic systems will make more successful use of the enormous possibilities offered. The Soviet economists assert that the socialist system has all the advantages. However, practice suggests the opposite. First, the West, in particular the United States, is well ahead of the USSR in the mechanization and automation of production. The Soviet Seven Year Plan envisages the "increase in the number of automatic and semi-automatic machines in the total number of machine tools to 10 to 12 per cent - the present level of automation of machine tools in the United States" (Kommunist, No. 8, 1959). Thus, even if the plan is fulfilled, the Soviet Union will be lagging some seven years behind the United States in 1965. Further, heavy manual labor was to be abolished from 1959 to 1965, but on August 1, 1959, "the number of workers carrying out manual labor amounted to 47 per cent of the total number of industrial workers" (Pravda, July 15, 1959).

Finally, the problem of unemployment when automation comes into its own is likely to be an economic headache. Steps are being taken in the West to avoid automation-caused job shortage. The problem has not yet been examined in the Soviet Union, since official doctrine denies that there can be unemployment. Yet the Soviet press quotes numerous examples of reductions in personnel as a result of automation. The reports do assure that other jobs are found for workers thus laid off. Elsewhere the Soviet press insists that "the problem of finding work will be solved by the gradual reduction in the working day" (Agitator, No. 7, 1957, p. 71). This is, of course, true and steps are being taken here. But here, too, the West is the first in the field. The USSR had promised to introduce a 41-hour week by the end of 1960, but some European countries already have a 40-hour week. Other writers have suggested that the machine-supplanted workers be sent to the semi-deserts and marshes of central Asia and Siberia. (Politicheskoye Samoobrazovaniye, Political Self-Education, No. 2, 1960, p. 112). The optimistic views of Soviet theoreticians about technological progress in the USSR are not confirmed by actual data. If and when mechanization and automation begin to play a major role in Soviet industry, there will be the problem of finding other employment for millions of workers.